



3 September 2002

Dr Bill Gara
Composting and Related Organics Processing Guidelines
Waste Policy Section
Environment Protection Authority
PO Box A290
SYDNEY SOUTH NSW 1232

Dear Bill

The Australian Environment Business Network (AEBN) welcomes the opportunity to comment on Composting and Related Organics Processing Guidelines.

AEBN is an industry and business representative body specializing in environmental issues, which affect our members. Our membership collectively has a turnover in excess of \$50 billion and employs well over 50,000 employees. Further information about AEBN can be found on our website at www.aebn.com.au.

The mounting costs of landfilling wastes accompanied by the government's strong drive to reduce waste to landfill is placing increasing pressure on industry and business to find alternative management methods for their wastes and by-products.

Landfill prices are expected to increase sharply over the next 8 years. Currently the waste levy in Sydney is at \$18.20 but is estimated to increase to \$32 per tonne by 2010. In addition, the reduction in solid waste landfill capacity in the Sydney area will force landfill prices even higher. Prices in the order of \$130—\$150 per tonne are expected to be reached over the next 10 years given the current waste market.

As a consequence of these cost increases, AEBN is sensitive to EPA guidelines and policies that affect alternative uses for wastes. Industry produces a wide range of wastes, many of which are recycled or reused and some are landfilled. With greater cost pressure the incentive to better segregate wastes, or find alternate uses for wastes that do not have to go to landfill is already considerable and will obviously increase.

Under ever increasing legal scrutiny, industry and business turn to government to produce policies that will provide certainty and an appropriate level of legal comfort for actions undertaken in following such policies. Unfortunately there is a void in regulatory and policy guidelines on how to beneficially use many waste types other than disposal of them to landfill.

The Composting and Related Organics Processing Guidelines (CROPG) is a step in the right direction in providing clarity for the composting industry and the industrial suppliers of by-products to that industry. However, the draft CROPG is not effective as it could be in providing certainty for industry and these shortcomings are dealt with later in this submission.

While this submission focuses on CROPG it presents an opportunity for AEBN to express a view on the types of policies and guidelines the EPA should be developing to enhance the beneficial use of industrial wastes. Areas for consideration in developing Guidelines on the beneficial use of wastes include:

- Use in soil conditioners
- Landfarming of wastes
- Use in stabilized earth works, (ie contained fill material)
- Use in concrete, asphalt and other bonded matrices for non-residential purposes
- Reused in building products
- Reused in other non-residential products
- Reuse in infrastructural projects

AEBN understands that the research and test methods for the development of most of the above are not complete, but the list provides a potential path for future discussions and consideration.

A major issue in the setting of any standards for the beneficial use of wastes is the costs of establishing whether the health and environmental risks are acceptable or not. Undertaking individual risk assessments on the application of a waste for beneficial use is an expensive process and limited to where the overall costs warrant such actions. This process suits contaminated land where the cost of remediation and the price for the cleaned land is much larger than undertaking a risk assessment on it. Invariably using only a risk assessment process means that only larger quantities of wastes can be assessed in this manner. Hence the issue is what to do about the smaller quantities of waste and where it would be uneconomic to undertake a risk assessment.

For landfills the use of the TCLP and general definitions for waste types has proved cost-effective, though not cheap, for even small quantities of wastes. However, the use of this limited technique¹ alone prevents the use of risk assessments, a sharper (and more expensive) method of assessment. Nevertheless, landfills are heavily controlled and must meet strict monitoring, operational and construction conditions and are subjected to environment protection licensing.

AEBN considers a new range of generic criteria, contaminant limits and test methods should be developed for the above list in conjunction with the permitted use of risk assessments. Many variables will need to be assessed, such as

- Local conditions (contaminated sites have always considered the land use for the cleaned up site and local conditions)
- Background levels
- Soil ion-exchange capacity
- Waste characteristics, contaminants, physical properties, mass
- Weathering, erosion and leaching
- Testing methods
- Sampling methods

While ambitious, obtaining clarity in this area will lead to the best environmental outcomes, at the lowest costs.

¹ The EPA's Waste Guidelines are generic and do not distinguish between landfills within its class and the variations in long term containment of waste contaminants on a site by site basis, as could be assessed by a risk assessment process.

The Compost Guidelines

AEBN's main concern with the CROPG is the lack of consideration for inert material use in compost. Inert bulking agents have are commonly used in composts. In many cases inert waste materials from industry form this bulking agent. AEBN considers the EPA should provide guidance in the final CROPG to provide some legal comfort to companies using inert wastes as a bulking agent in compost. At a minimum the EPA should permit the use risk assessments for waste based inert material use in composts be included in the guidelines.

The risk assessment process is an internationally accepted method to set concentration limits for a variety of health and environmental parameters. For example it is enshrined as the key international method in determining contaminant levels in foods². Appendix 1 *Criteria for the Establishment of Maximum Levels in Foods* contains extracts from the Codex Alimentarius on the risk assessment process to be used for determining concentrations of contaminants in foods. AEBN considers this a process may be a useful pro-forma for the EPA to develop a risk assessment process for the beneficial use of wastes. Appendix 2 contains an extract of maximum contaminant concentrations for various food types, and could be a useful comparison in the setting of concentration limits for the beneficial use of wastes.

R1 AEBN recommends that:

- **Inert materials for use in composts be covered in the Composting and Related Organics Processing Guidelines**
- **The use of risk assessments covering inert materials be recognized as an means for inert waste materials to be used, as long as the risks are satisfactory**

The next issue is if contaminant limits should be provided for either the inert materials or on the final compost, as have been provided from the Biosolids Guidelines. Issues have been raised in relation to the conservative nature of the Grade A biosolids contaminant limits, especially for zinc and copper.

AEBN is mindful of the difficulties when setting limits for wastes as many toxic materials may require measurement, such as dioxins. Dioxin limits applied generically would prevent smaller quantities of wastes from being considered for use in compost, due to the high cost of analysis. To prevent high cost analytical processes undermining the economic beneficial use of waste in compost AEBN considers the EPA provide an inclusionary list of waste types or industry types that do not require to under take expensive analysis techniques.

For example, the use of ash from waste incinerators would be suspect of exceeding dioxin limits. However, other waste ashes, such as from coal-fired boilers need not be tested on dioxins if there is reasonable evidence that similar ashes contain dioxin levels well below levels of concern.

The levels of contaminants of concern should be based on the concentrations to be found in the final product, rather than the waste being blended. This would be consistent with the draft CROPG and the risk assessment process. It would also cover

² See www.codexalimentarius.net for the international methods for setting contaminant levels in food. Attached in Appendix 2 is an extract of various contaminant limits for various food types Appendix 1 is the Criteria for the Establishment of Maximum Levels in Food

the issue of varying levels of inert (waste) material used in differing grades of composts.

R2 AEBN recommends that the following be incorporated into the compost guidelines:

- **A list of contaminant limits be set for the use of inert wastes in composts**
- **Certain high cost analysis, such as dioxins, be required to be undertaken only from a selected list of wastes based on its source and or generational processes**
- **The limits to be applied to the final compost mix**
- **Contain a provision that where high cost analyses are an issue that the EPA should consider submissions for exemption from specific tests.**
- **Analysis on the waste in question be selected to represent the types of contaminants that are potentially present, hence not requiring all test methods to be conducted.**

Use of concentration limits applied in a generic manner is likely to lead to a set of conservative limits that would be based on applications of wastes in the most environmentally and health sensitive areas. Such an approach is already used in the Australian and New Zealand Water Quality Guidelines. To get around the issue of having set concentration limits based on Australia's most clean and sensitive watercourses (i.e. snowy rivers and creeks quality) the Guidelines specify that local conditions must be considered when setting concentration limits.

For example, a 10 mg/l suspended solid limit is acceptable for Spencers Creek in the snowy mountains, but would be out of place for discharges to the Murray River where suspended solid concentrations commonly and naturally exceed 1,000 mg/l. Hence AEBN wishes to emphasise that if concentration limits for the beneficial use of wastes is to be set it should also be permitted to vary according to background levels and its type of operation and final use.

AEBN considers the above recommendations are, in part, a useful approach to the provision of some legal comfort for companies wishing to use their wastes for beneficial purposes. We look forward to the EPA developing new innovative guides, policies and regulations to permit use of many wastes that otherwise would be forced to be disposed of to landfill.

Should you wish to discuss the above recommendations please contact me on (02) 9924 7515.

Yours sincerely

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